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Notice of Allowability	Application No.	Applicant(s)	
	10/601,634	CUSYATINER ET AL.	
	Examiner	Art Unit	
	Delia M. Ramirez	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/11/2006.
2. ☒ The allowed claim(s) is/are 6-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

Status of the Application

Claims 6-9 are pending.

Amendment of claims 6, 8-9 and cancellation of claims 1, 3-5 as submitted in a communication filed on 12/11/2006 is acknowledged.

Applicant's submission of a statement indicating that the biological deposit of *E. coli* strain 505 was made under the terms of the Budapest Treaty and that all restrictions regarding its availability to the public will be irrevocably removed upon granting of a patent on this application is acknowledged.

As indicated in a personal interview with Vincent Shier on 1/9/2007, claims 6-7 will be rejoined in accordance with the provisions of MPEP § 821.04.

In a telephone conversation with Vincent Shier on 1/9/2007, an agreement was reached to amend claims 7-9 to place the application in condition for allowance.

Examiner's Amendment

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this Examiner's amendment was given in a telephone interview with Vincent Shier on 1/9/2006.
3. Please replace claims 7, 8 and 9 as follows:

7. A method for producing L-leucine, which method comprises the steps of:

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- cultivating the bacterium according to claim 9 in a medium to produce and accumulate the L-leucine in the medium, and
- collecting the L-leucine from the medium.

8. An isolated L-leucine producing bacterium belonging to the genus *Escherichia* which produces L-leucine, L-valine, L-isoleucine and L-homoleucine, wherein the amount of L-valine, L-isoleucine, and L-homoleucine produced is less than 1% of that of L-leucine produced, wherein the bacterium is *Escherichia coli* strain 505 which has been deposited in the Russian National Collection of Industrial Microorganisms under accession number VKPM B-8124.

9. An isolated L-leucine producing bacterium, wherein the bacterium is *Escherichia coli* strain 505 further modified to increase the activity of the protein coded by the *tyrB* gene of *Escherichia coli*, wherein said increase is obtained by increasing the copy number of said *tyrB* gene, or by locating said *tyrB* gene under control of a potent promoter.

Reasons for Allowance

4. The following is an Examiner's statement of reasons for allowance. Although the prior art discloses mutant *E. coli* cells which can synthesize L-leucine, wherein the *ilvE* gene has an inactivating deletion (Gelfand et al.; cited in previous Office actions), the Examiner has found no teaching or suggestion in the prior art directed to *E. coli* strain 505, deposited in the Russian National Collection of Industrial Microorganisms under accession number VKPM B-8124. Therefore, claims 6-9 directed to *E. coli* strain 505, *E. coli* strain 505 further modified to increase the activity of the *E. coli tyrB* gene by increasing the copy number of the *E. coli tyrB* gene, or by

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placing said gene under a potent promoter, as well as methods of producing L-leucine which require cultivation of said *E. coli* strains, are allowable over the prior art of record.

Conclusion

5. Claims 6-9 are allowed.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (571) 272-0938. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (571) 272-0928. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.



Delia M. Ramirez, Ph.D.
Patent Examiner
Art Unit 1652

DR
January 9, 2007